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09/746,914	12/22/2000	Dave Snowdon	D/A0456	3970

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EXAMINER
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PILLAI, NAMITHA

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 01/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/746,914

Applicant(s)

SNOWDON ET AL.

Examiner

Namitha Pillai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/19804 (Mainwaring et al.) and U. S. Patent No. 5,831,602 (Sato et al.).

Referring to claim 1, Mainwaring discloses an electronic board with a screen for displaying information items of interest in different areas of the screen (page 5, lines 10-12 and lines 20-26). Mainwaring also discloses means for sensing which areas of the screen are of interest to users viewing the screen (page 5, lines 20-26) and an input device for receiving information to be displayed on the electronic board from a plurality of users (page 6, lines 1-2). Mainwaring also discloses a memory means for storing information received from the input device (page 5, lines 14-15). Mainwaring also discloses that the server, which is the processor allows a user to select the information items from the input device and the memory to be displayed on the screen (page 5, lines 20-26), for determining where and how to display the selected information item, based on the user's accessibility to this information and for displaying this selected information items in the different areas on the screen, once the user's authenticity has been verified (page 11, lines 11-17). The server dynamically determines the information items to be displayed on the screen based on the predetermined relationship concerning the group criteria and the user interest in these groups (page 11, lines 1-8). Mainwaring does not disclose

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reactively selecting which information items to be displayed based on the sensed user interest in a distinct area of the screen, even though Mainwaring does deal with the sensing of user input and user presence with a certain area (page 5, lines 20-25). Sato teaches reactively selecting how and where certain information items are displayed on the screen in accordance with a sensing means sensing user interest, wherein in response to user interested as determined through a sensing means, the processor displays more items or more emphasis on the screen that are similar to items in the sensed areas at the expense of items in areas in which there is less user interest (column 1, lines 60-67). Sato clearly determines that the items that are similar to each other, wherein the items being the pixels with a distinct contrast hue, all being in a distinct area, the area based on the user's interest and current location, wherein the area that has the interest by the user is added with similar contrasting items wherein that area is given more emphasis at the expense of areas that are not of interest to the user. Mainwaring and Sato are both electronic board systems which displays to a plurality of users wherein a plurality of users can input their choices to this screen, and based on this sensed user input, the items of interest are displayed to the user, wherein Sato goes further in displaying those items that are similar to each other within a distinct interested area. Mainwaring also ensures that the information that is of interest to the user is displayed wherein based on the user input, the display changes to satisfy the user's needs. With large electronic board systems, it becomes necessary to bring notice for the users to bring attention to a specific small area within such a large area. IN addition, Mainwaring is concerned with sending messages of relevance to users, and hence it is important that a user see the message of relevance in such a large screen. Hence, Sato's teachings of sensing user interest would allow for Mainwaring to bring attention to the messages of interest to a user based on

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user's interests or input in a certain area, wherein a specific user can concentrate on that one area to view the items that are of interest to that user.

Referring to claim 2, Mainwaring discloses a single appliance wherein all the functionalities of the electronic board is formed into one device (page 12, lines 22-24), wherein the means for printing and copying (page 3, lines 24-26) and scanning (page 6, lines 4-6) can be done within this multi-function device.

Referring to claim 5, Mainwaring discloses a plurality of personal client computers and workstations connected to a network (page 2, lines 6-7).

Referring to claim 6, Mainwaring discloses that users wanting to access certain information that is displayed on the screen, upon requesting, the display screen with the board information is transmitted to the user's workstation and displayed thereon (page 11, lines 10-15).

Referring to claim 7, Mainwaring discloses that the network can be an Internet connection (page 10, lines 3-5).

Referring to claim 9, Mainwaring discloses that the input device comprises a touch screen embedded in the electronic board (page 5, lines 20-24).

Referring to claim 10, Mainwaring discloses that based on the information request from the client computers from the memory in the server, a copy of the requested information is outputted (page 2, lines 14-19).

Referring to claim 11, Mainwaring discloses that input device; the scanner in this case, comprises an electronic information system having a paper user interface, wherein this paper will be scanned (page 6, lines 4-7).

Referring to claim 12, Mainwaring discloses using email and receiving the submissions containing information and requests sent from the users (page 20, lines 13-14).

Referring to claim 13, Mainwaring discloses using external services and devices used to provide information to the user (page 13, lines 2-5), wherein, as disclosed, as is the case with all the information in Mainwaring's invention, the server processor selects the items to be displayed from this external device based on the groups that can access this type of information (page 11, lines 10-14).

Referring to claims 14 and 15, Mainwaring discloses that the information provided by the external service comprises video and audio information (lines 4-5).

Referring to claim 17, Mainwaring discloses that the predetermined relationship is a function of information topics most representative to the plurality of users at the current time (Figure 8 and page 10, lines 26-27).

Referring to claim 18, Mainwaring discloses that the information displayed is about the most representative topics in a manner wherein, onlookers of a particular topic can view which information is of current interest to the plurality of users, based on under which topic these users are interested in (page 11, lines 4-8).

Referring to claim 26, Mainwaring discloses that the size and the location, referred to in the placement of the notes are based on a function of time displayed and user interest (page 14, lines 14-18).

Referring to claim 27, Mainwaring as seen in Figure 5, discloses a plurality of sensors disposed behind the screen, wherein the sensors detect user interest in information displayed on the screen near the sensor (page 10, lines 5-17).

Referring to claim 28, Mainwaring discloses that the requests made by the client computer are stored and processed by the server, wherein the server has the copies of the displayed items that are being requested by the clients (page 2, lines 5-19).

Referring to claim 30, Mainwaring discloses using information written on the screen or pointed to by persons near the screen for sensing the detecting of information (page 5, lines 20-24 and Figure 4).

Referring to claim 31, Mainwaring discloses the use of a camera as an input device, wherein the operation of this input device would detect the presence of a person standing near the screen, this detection identifying the person, as seen of the person in Figure 4, the camera being shown in Figure 5 (page 10, lines 5-8).

2. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mainwaring and Sato and further in view of U. S. 2000/0026398 A1 (Sheth).

Referring to claims 3 and 4, Mainwaring and Sato do not disclose that the input device is a mobile computing device such as a personal digital assistant, portable computer or cell phone, as recited in the claims. Sheth discloses a collaborative system, similar to Mainwaring, wherein users can access this system from various locations, wherein Sheth goes further to add that the users can communicate using mobile computing devices such as personal digital assistant, portable computers or cell phones (page 2, paragraph 40, lines 9-13). It would have been obvious for one skilled in art, at the time of the invention, to learn from Sheth and implement these mobile computing devices as input devices. These computing devices disclosed by Sheth are common to most users who may be interested in accessing Mainwaring and Sato's system. As such, in addition to the input devices used by Mainwaring already, the addition of these

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mobile devices would only attract more users who may already own such machines and can access Mainwaring and Sato's system through these devices, thereby attracting more users who could take part in Mainwaring and Sato's collaborative system. Hence, one skilled in the art, at the time of the invention, would have been motivated to learn from Sheth to implement mobile computing devices, such as a personal digital assistant, portable computer or cell phone as input devices.

3. Claims 8, 16, 19, 21 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mainwaring and Sato and further in view of U. S. Patent No. 5,983,214 (Lang et al.).

Referring to claim 8, Mainwaring and Sato do not explicitly state that the network is an intranet, as recited in the claims. But as is known, intranet is network similar to the Internet, wherein it is an extension that gives privacy within an organization, building a network, which only gives those belonging to that organization access to the network. Lang also discloses that it would be obvious to include an intranet when building systems involving networks, as is done in Lang and Mainwaring (column 6, lines 34-37). It would have been obvious for one skilled in the art, at the time of the invention to implement Mainwaring and Sato's invention such that the network is an intranet. Intranet allows the users to access a network that allows for privacy and exchange of information that should not be accessible to those outside an organization, which is common in electronic boards, as such seen in Mainwaring and Sato, where sensitive and private information may be exchanged. Hence, one skilled in the art, at the time of the invention, would have been motivated to implement the network as an intranet.

Referring to claim 16, Mainwaring and Sato do disclose a system wherein data is displayed based on a group recommendation but does not disclose a rating system for this



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information, as recited in the claims. Lang discloses a means through which a rating is made for information to be displayed, wherein the "informon" or data is stored, and analyzed to determine this rating (column 2, lines 18-23). It would have been obvious for one skilled in the art, at the time of the invention to learn from Lang and implement a rating system to analyze the information being input by the users of Mainwaring and Sato's board system. Mainwaring and Sato have a community board system, wherein users belonging to a certain community can access and post information, much like the community system discussed by Lang, wherein Lang goes further to discuss that the relevancy of the information placed in a "community" is based on a rating system, wherein this rate decides the relevancy of a piece of data in a distinct community (Lang, column 3, lines 60-67 and column 4, lines 1-4). Mainwaring and Sato can use this rating system to decide the accessibility of users and postings of messages belonging to distinct communities. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Lang to implement such a rating system.

Referring to claim 19, Mainwaring and Sato discloses a recommendation criteria based on the interests of the users and based on the groups that these users belong to but does not disclose the specifics of determining the recommendation criteria, as recited in the claims. Lang discloses that the criteria is a function of preferences of a plurality of users, wherein the predetermined relationship, formed by groups, are based on the criteria that is likely to be of general interest to the plurality of users (column 3, lines 59-64). It would have been obvious for one skilled in the art, at the time of the invention to learn from Lang and disclose the means through which these communities or groups are created, wherein the criteria for these groups are based on common interests that a plurality of the users of these groups share. Mainwaring

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obviously has groups, wherein the users may share a commonality but does not disclose that these criteria is a function of the preferences of the users, and does not discuss the details of the means through which these groups were created, but does show that these groups do exist. Hence, Mainwaring and Sato would need specific criteria through which these groups or communities are created for Mainwaring to carry out the invention disclosed. Hence, one skilled in the art, at the time of the invention, would have been motivated to learn from Lang to implement that the criteria is a function of preferences of a plurality of users, wherein the predetermined relationship, formed by groups, are based on the criteria that is likely to be of general interest to the plurality of users.

Referring to claim 21, Mainwaring and Sato do disclose the storing of topics as seen in Figure 5 of Mainwaring, but does not disclose any ranking measures for these topics, as recited in the claims. Lang discloses the ranking of information, wherein the ranking forms list based on relevancy for the users to access (column 1, lines 64-67 and column 2, lines 1-2). It would have been obvious for one skilled in the art, at the time of the invention to rank the group names or topics discussed in Mainwaring and Sato's board system. Mainwaring discusses various topics that a user may be interested in accessing but does not provide a ranking system, listing the names of the groups that are most relevant to this user. Lang provides this ranking and listing system, and clearly states that users can access this list for accessing topics that are most relevant to them, which can be used in Mainwaring and Sato's system, so that Uncle Joe could more easily access the PTA and family groups without having to traverse through the other groups (Mainwaring, Figure 5). Hence, one skilled in the art, at the time of the invention, would have been motivated to learn from Lang to disclose a means for ranking the most relevant topics.

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Referring to claim 29, Mainwaring and Sato discloses that the item attributes and sensor input are used to determine which item to be displayed on the screen (Mainwaring, page 5, lines 20-23) but does not disclose using user ratings, as recited in the claims. Lang discloses a means through which a rating is made for information to be displayed, wherein the "informon" or data is stored, and analyzed to determine this rating (column 2, lines 18-23). It would have been obvious for one skilled in the art, at the time of the invention to learn from Lang and implement a rating system to analyze the information being input by the users of Mainwaring and Sato's board system. Mainwaring and Sato have a community board system, wherein users belonging to a certain community can access and post information, much like the community system discussed by Lang, wherein Lang goes further to discuss that the relevancy of the information placed in a "community" is based on a rating system, wherein this rate decided the relevancy of a piece of data in a distinct community (Lang, column 3, lines 60-67 and column 4, lines 1-4). Mainwaring and Sato can use this rating system to decide the accessibility of users and postings of messages belonging to distinct communities. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Lang to implement such a rating system.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mainwaring and Sato and further in view of U. S. Patent No. 5,528,745 (King et al.).

Referring to claim 20, Mainwaring and Sato do not disclose specifically a calendar for the plurality of users of a group, as recited in the claims. King discloses a scheduling system for a plurality of users, whereby an intuitive display of scheduling information for a plurality of users is represented (column 1, lines 8-12). It would have been obvious for one skilled in the art, at the time of the invention to learn from King to implement this group calendar. As King

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discloses, group scheduling is well known in the art, and one version of this group calendar system is disclosed in King, wherein users collaborating can easily access the schedules of various users belonging to this collaboration. Such a collaboration is also discussed in Mainwaring, where users may need to schedule events and hence would need access to each other's calendars. Hence, one skilled in the art would have been motivated to learn from King to implement a group calendar, wherein the predetermined relationship referring to the group relationship or users in one collaboration, would have access to the group calendar functions.

5. Claim 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mainwaring, Sato and Lang as applied to claim 21 above, and further in view of U. S. Patent No. 6,493,703 B1 (Knight et al.).

Referring to claim 22, Mainwaring, Sato and Lang do not disclose the statistics of the user's activities, as recited in the claims. Knight does disclose statistics that discuss the number of times users have posted information and number of times users have read or displayed certain information (column 18, lines 32-42). It would have been obvious for one skilled in the art, at the time of the invention to learn from Knight and implement a statistics determining means for determining the users' activities. Knight discloses how such information can be provided for general interest and would help in determining the interests of the users and thereby help in the ranking of the items of interests in a board system. Mainwaring, Sato and Lang would need to determine the statistics concerning the interests of the users, to implement their ranking system, as disclosed in claim 21. Hence, one skilled in the art, at the time of the invention, would have been motivated to learn from Knight to implement a means for determining the activities of the users.

Referring to claim 23, Mainwaring, Sato, Lang and Knight disclose that each topic shown in reference number 360, Figure 3D of Knight, are ranked in accordance with the number of higher rated individual items in such topic, the individual items being shown in reference number 365 of Figure 3D of Knight. It would have been obvious for one skilled in the art, at the time of the invention to learn from Knight and implement a statistics determining means for determining the users' activities, and implementing this to rank the items. Knight discloses how such information can be provided for general interest and would help in determining the interests of the users and thereby help in the ranking of the items of interests in a board system. Mainwaring, Sato and Lang would need to determine the statistics concerning the interests of the users, to implement their ranking system, as disclosed in claim 21. Hence, one skilled in the art, at the time of the invention, would have been motivated to learn from Knight to implement a means for determining the activities of the users, and ranking these items.

Referring to claim 24, Mainwaring, Sato, Lang and Knight also disclose that there is a means for determining the items of information that are to be displayed as shown in Figure 3D of Knight, based on the higher ranked topics and the individual rankings of each items within the topics, wherein the topics that are ranked high based on the individual items in that topic that are ranked high are displayed to the user.

Referring to claim 25, Mainwaring, Sato and Lang do not disclose that which items are to be displayed based on the ranked items. Knight discloses that there is a means for determining the items of information that are to be displayed as shown in Figure 3D of Knight, based on the higher ranked topics and the individual rankings of each items within the topics, wherein the topics that are ranked high based on the individual items in that topic that are ranked high are

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displayed to the user. It would have been obvious for one skilled in the art, at the time of the invention to learn from Knight and implement a statistics determining means for determining the users' activities, and implementing this to rank the items. Knight discloses how such information can be provided for general interest and would help in determining the interests of the users and thereby helps in the ranking of the items of interests in a board system, and displaying the items that are ranked. Mainwaring, Sato and Lang would need to determine the statistics concerning the interests of the users, to implement their ranking system, as disclosed in claim 21. Hence, one skilled in the art, at the time of the invention, would have been motivated to learn from Knight to implement a means for determining the activities of the users, and ranking these items and displaying the ranked items.

***Response to Claim Changes***

6. The Examiner's acknowledges the Applicant's amendments to better specify the claimed invention. However, all claims are rejected under 35 U. S. C. 103 as being obvious over prior arts.

***Response to Arguments***

7. Applicant's arguments filed 9/25/03 have been fully considered but are moot in view of the new ground(s) of rejection.

With respect to Applicant's arguments that Mainwaring is not dynamic in that the items are displayed based on a user's request. Mainwaring basis its displayed items on the user's current choices and interest, and wherein the display dynamically changes based on the user choices (page 5, lines 20-25).

With respect to Applicant's arguments that Mainwaring does not teach a sensing apparatus of responding to a user interest by highlighting a region wherein user interest is sensed at the expense of other items on the screen. Sato satisfies this teaching of sensing user interest in a distinct area, wherein this teaching can provide motivation for Mainwaring to further implement its sensing apparatus to react to user interest by displaying more items within a distinct area.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington D.C. 20231. If applicant desires to fax a response, central FAX number (703) 872-9306 may be used. NOTE: A Request for Continuation (Rule 60 or 62) cannot be faxed.

Please label "PROPOSED" or "DRAFT" for informal facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the

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document. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

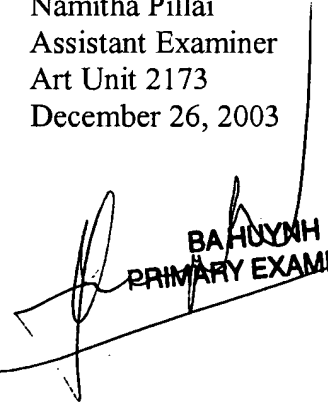
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (703) 305-7691. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Namitha Pillai  
Assistant Examiner  
Art Unit 2173  
December 26, 2003

  
BA HUYNH  
PRIMARY EXAMINER